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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/597,274	07/19/2006	Fabio Vignoli	US040042US2	8760

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EXAMINER

DISTEFANO, GREGORY A

ART UNIT	PAPER NUMBER
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2176

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09/23/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/597,274	Applicant(s) VIGNOLI ET AL.	
	Examiner GREGORY A. DISTEFANO	Art Unit 2176	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 July 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07 July 2008 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>7/19/2006</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This action is in response to the application filed on 7/19/2006.
2. Claims 1-20 have been submitted for examination.

Claim Rejections - 35 USC § 101

3. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

4. Claims 1-12 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

5. Claims 1-12 are specifically directed to a system. This "system" may be interpreted to be simply computer software per se which is nonfunctional descriptive material as discussed in MPEP 2106.1 as follows:

**I. FUNCTIONAL DESCRIPTIVE MATERIAL: "DATA STRUCTURES"
REPRESENTING DESCRIPTIVE MATERIAL *PER SE* OR COMPUTER
PROGRAMS REPRESENTING COMPUTER LISTINGS *PER SE***

Data structures not claimed as embodied in computer-readable media are descriptive material *per se* and are not statutory because they are not capable of causing functional change in the computer. See, e.g., *Warmerdam*, 33 F.3d at 1361, 31 USPQ2d at 1760 (claim to a data structure *per se* held nonstatutory). Such claimed data structures do not define any structural and functional interrelationships between the data structure and other claimed aspects of the invention which permit the data structure's functionality to be realized. In contrast, a claimed computer-readable medium encoded with a data structure defines structural and functional interrelationships between the data structure and the computer software and hardware components which permit the data structure's functionality to be realized, and is thus statutory.

Similarly, computer programs claimed as computer listings *per se*, i.e., the descriptions or expressions of the programs, are not physical "things." They are neither computer components nor statutory processes, as they are not "acts" being performed. Such claimed computer programs do not define any structural and functional interrelationships between the computer program and other claimed elements of a computer which permit the computer program's functionality to be realized. In contrast, a claimed computer-readable medium encoded with a computer program is a computer element which defines structural and functional interrelationships between the computer program and the rest of the computer which permit the computer program's functionality to be realized, and is thus statutory. See *Lowry*, 32 F.3d at 1583-84, 32 USPQ2d at 1035. Accordingly, it is important to distinguish claims that define descriptive material *per se* from claims that define statutory inventions.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

7. Claims 1-7, 12-15, and 20 are rejected under 35 U.S.C. 102(e) as being anticipated by Dunning et al. (US 2003/0229537), hereinafter Dunning.

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8. As per claim 1, Dunning teaches the following:

an artist similarity module that is configured to identify one or more similar artists to an identified artist to create an artist list, (pg. 15, paragraph [0252]), i.e. referring now to Fig. 11, there is shown an example of a screen shot 1100 depicting sample artist-level relationships. Query term 1101 is shown, along with the list 1102 of recommended artists, generated by engine 107,

an artist selector, operably coupled to the artist similarity module, that is configured to select a selected artist from the artist list, (pg. 6, paragraph [0092]), i.e. in one embodiment, module 104 presents a series of “browse pages”, viewable via web site 106, for browsing through lists of related music tracks and artists. The user may follow links for particular tracks and artists, to either play the tracks, or continue browsing for additional related tracks, and

an item selector, operably coupled to the artist selector, that is configured to:

select a selected item associated with the selected artist from a source of items, (pg. 6, paragraph [0092]), i.e. in one embodiment, module 104 presents a series of “browse pages”, viewable via web site 106, for browsing through lists of related music tracks and artists. The user may follow links for particular tracks and artists, to either play the tracks, or continue browsing for additional related tracks, and

include an identifier of the selected item in the playlist, (pg. 13, paragraph [0211]), i.e. the present invention employs relationship discovery engine 1604, in

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connection with learned artist relationships 1605, to find related items for generation of suggestions, track lists, and the like. (further see Fig. 20A, #1802)

9. Regarding claim 2, Dunning teaches the system of claim 1 as described above.

Dunning further teaches the following:

the artist similarity module is further configured to identify the one or more similar artists based on a plurality of artists associated with the source of items, (pg. 6, paragraph [0092]), i.e. search results may be augmented by including secondary results that are similar to or related to the primary results, according to the relationship discovery techniques of the present invention.

10. Regarding claim 3, Dunning teaches the system of claim 1 as described above.

Dunning further teaches the following:

a collection of items of a user that correspond to the source of items, (pg. 8, paragraph [0130]), i.e. candidate songs are scored to find violations of sequence constraints by rule engine 164 that has access to a list of all potentially playable songs as audio files 165 and a listener history 167 containing the songs that the current listener has heard on this station.

11. Regarding claim 4, Dunning teaches the system of claim 1 as described above.

Dunning further teaches the following:

a rendering device that is configured to render items identified in the playlist (see Fig. 23F).

12. Regarding claim 5, Dunning teaches the system of claim 1 as described above.

Dunning further teaches the following:

the system is further configured to create a subset of source items from the source of items, based on one or more general preferences of the user, (pg. 7, paragraph [0106]), i.e. web site 106 offers the capability for suggesting tracks and artists that may interest the user, based on personal criteria 111, profiles 112, of track-level discovered relationships based on observed user listening behavior determined by log analysis 112 of play logs 114, and

the playlist generator is further configured to limit the selected item to the subset of source items (as may be seen in Dunning, the user is limited to results of a search. These presented artists are interpreted to be a “subset” of items, where the “items” are all possible results).

13. Regarding claim 6, Dunning teaches the system of claim 1 as described above.

Dunning further teaches the following:

one or more items of the source of items are accessible via an Internet access, (pg. 6, paragraph [0092]), i.e. in one embodiment, module 104 presents a series of “browse pages”, viewable via web site 106, for browsing through lists of related music

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tracks and artists. The user may follow links for particular tracks and artists, to either play the tracks, or continue browsing for additional related tracks.

14. Regarding claim 7, Dunning teaches the system of claim 1 as described above.

Dunning further teaches the following:

a user interface that facilitates identification of the identified artist (see Fig. 11).

15. Regarding claim 12, Dunning teaches the system of claim 1 as described above.

Dunning further teaches the following:

the item selector is further configured to select the selected item based on whether the selected item is similar to other items associated with the selected artist, (pg. 6, paragraph [0092]), i.e. search results may be augmented by including secondary results that are similar to or related to the primary results, according to the relationship discovery techniques of the present invention.

16. As per claim 13, Dunning teaches the following:

identifying an identified artist (see Fig. 11, #1101),
identifying one or more similar artists to the identified artist (see Fig. 11, #1102),
selecting a select artist from the one or more similar artists, (pg. 6, paragraph [0092]), i.e. in one embodiment, module 104 presents a series of “browse pages”, viewable via web site 106, for browsing through lists of related music tracks and artists.

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The user may follow links for particular tracks and artists, to either play the tracks, or continue browsing for additional related tracks,

selecting a select item associated with the select artist, (pg. 6, paragraph [0092]), i.e. in one embodiment, module 104 presents a series of “browse pages”, viewable via web site 106, for browsing through lists of related music tracks and artists.

The user may follow links for particular tracks and artists, to either play the tracks, or continue browsing for additional related tracks,

including an identifier of the select item in the playlist, (pg. 13, paragraph [0211]), i.e. the present invention employs relationship discovery engine 1604, in connection with learned artist relationships 1605, to find related items for generation of suggestions, track lists, and the like. (further see Fig. 20A, #1802)

17. Regarding claim 14, Dunning teaches the system of claim 13 as described above. Dunning further teaches the following:

selecting the selected artist includes selecting the selected artist from a plurality of artists associated with the source of items, and *selecting the selected item includes selecting the selected item from a plurality of items in the source of items* (see page 9, paragraph [0128] through page 10, paragraph[0134] where Dunning teaches that their matches are found from the overall collections).

18. Regarding claim 15, Dunning teaches the system of claim 13 as described above. Dunning further teaches the following:

identifying a subset of source, items from a source of items, based on one or more preferences of a user, (pg. 7, paragraph [0106]), i.e. web site 106 offers the capability for suggesting tracks and artists that may interest the user, based on personal criteria 111, profiles 112, of track-level discovered relationships based on observed user listening behavior determined by log analysis 112 of play logs 114, and

wherein selecting the selected item includes selecting the selected item from the subset of source items (as may be seen in Dunning, the user is limited to results of a search. These presented artists are interpreted to be a “subset” of items, where the “items” are all possible results).

19. Regarding claim 20, Dunning teaches the system of claim 13 as described above. Dunning further teaches the following:

selecting the selected item includes determining a similarity of the selected item to other items associated with the selected artist, (pg. 6, paragraph [0092]), i.e. search results may be augmented by including secondary results that *are similar to or related to the primary results, according to the relationship discovery techniques of the present invention*, and

selecting the selected item based on the similarity, (pg. 6, paragraph [0092]), i.e. search results may be augmented by including secondary results that are similar to or related to the primary results, according to the relationship discovery techniques of the present invention.

Claim Rejections - 35 USC § 103

20. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

21. Claims 8-10 and 16-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dunning as applied to claims 1 and 13 as described above, in view of Cluts et al. (US 5,616,876), hereinafter Cluts.

22. Regarding claims 8, 10, 16, and 18, Dunning teaches the system of claims 1 and 13 as described above. However, Dunning does not explicitly teach a method of a selection of a level of artist similarity. Cluts teaches the following:

a user interface that facilitates selection of a level of artist similarity, and wherein the artist similarity module is configured to identify the one or more similar artists based on the selected level of artist similarity, (column 16, lines 1-6), i.e. the method of searching for and matching the entries in the audio content database employs a qualitative scale of closeness, which is controlled by a matching closeness indicator. In the preferred system, the matching closeness indicator is a style slide, which is presented as part of the user interface.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the similar artist search method of Dunning with

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the matching closeness indicator of Cluts. One of ordinary skill would have been motivated to have made such modifications because both Dunning and Cluts are analogous art in the field of searching audio files.

23. Regarding claims 9 and 17, Dunning teaches the system of claims 1 and 13 as described above. However, Dunning does not explicitly teach a method of a selection of a level of artist diversity. Cluts teaches the following:

a user interface that facilitates selection of a level of artist diversity, and wherein the artist selector is configured to select the selected artist based on the selected level of artist diversity, (column 16, lines 1-6), i.e. the method of searching for and matching the entries in the audio content database employs a qualitative scale of closeness, which is controlled by a matching closeness indicator. In the preferred system, the matching closeness indicator is a style slide, which is presented as part of the user interface.

The examiner interprets this teaching of Cluts to encompass applicant's claim in that a user of Cluts's matching closeness indicator setting that indicator to that of low closeness, the results would be more diverse than that of a high closeness.

24. Claims 11 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dunning as applied to claims 1 and 13 above, and further in view of "PATs: Realization and User Evaluation of an Automatic Playlist Generator", published in 2002, by Pauws et al., hereinafter PATs.

25. Regarding claims 11 and 19, Dunning teaches the method of claims 1 and 13 as described above. However, Dunning does not explicitly teach a method of clustering the items. PATS teaches the following:

an item cluster module that is configured to partition each item associated with the selected artist in the source of items into one or more clusters, based on attributes associated with each item, and wherein the item selector is further configured to select the selected item based on the cluster of the one or more clusters associated with the selected item, (page 3, paragraph 2.4), i.e. songs are clustered based on a similarity measure that selectively weighs attribute values of songs.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the similar artist search method of Dunning with the clustering method of PATS. One of ordinary skill would have been motivated to have made such modifications because both Dunning and PATS are analogous art in the field of searching audio files.

Conclusion

26. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

-van Zoest et al. (US 6,496,802), system and method for providing access to electronic works.

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- Porteus et al. (US 6,933,433), method for producing playlists for personalized music stations and for transmitting songs on such playlists.
- Platt (US 6,987,221), auto playlist generation with multiple seed songs.
- Li et al. (US 7,231,381), media content search engine incorporating text content and user log mining.
- Gao et al. (US 7,243,307), customizable database-driven menu structure for a portable computing device.
- Liu et al. (US 7,283,992), media agent to suggest contextually related media content.

27. Any inquiry concerning this communication or earlier communications from the examiner should be directed to GREGORY A. DISTEFANO whose telephone number is (571)270-1644. The examiner can normally be reached on Monday through Friday, 9 a.m. - 5 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Doug Hutton can be reached on 571-272-4137. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should

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you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/GREGORY A DISTEFANO/
Examiner, Art Unit 2176
9/17/2008

/Rachna S Desai/
Primary Examiner, Art Unit 2176